



THE EFFECT OF PROFITABILITY AND LEVERAGE ON ECONOMIC VALUE ADDED (EVA) IN THE COAL MINING SUB-SECTOR FOR THE PERIOD 2021-2023

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Abstract

This research aimed to determine and analyze the effect of Profitability and Leverage Ratios on Economic Value Added (EVA) on Financial Performances of Coal Mining Companies Listed on the IDX for the 2021 – 2023 periods. This research used quantitative methods with a descriptive approach. This research used the Panel Data Regression Analysis Method. The result of this research showed Return On Equity (ROE) partially had a positive and significant effect on Economic Value Added (EVA). Debt to Equity Ratio (DER) partially had no significant negative effect on Economic Value Added (EVA) in Corporate Business Sustainability. Return On Equity Ratio (ROE) and Debt to Equity Ratio (DER) simultaneously or together had a positive and significant effect on Economic Value Added (EVA).

Keywords: Economic Value Added, Return On Equity, Debt to Equity Ratio, Financial Performances, Financial Report, Return On Equity.

Abstrak

Penelitian ini bertujuan untuk mengetahui dan menganalisis pengaruh Rasio Profitabilitas dan Leverage terhadap Economic Value Added (EVA) pada Kinerja Keuangan Perusahaan Pertambangan Batu Bara yang Terdaftar di BEI periode 2021 - 2023. Penelitian ini menggunakan metode kuantitatif dengan pendekatan deskriptif. Penelitian ini menggunakan Metode Analisis Regresi Data Panel. Hasil penelitian ini menunjukkan Return On Equity (ROE) secara parsial berpengaruh positif dan signifikan terhadap Economic Value Added (EVA). Debt to Equity Ratio (DER) secara parsial tidak berpengaruh negatif signifikan terhadap Economic Value Added (EVA) pada Corporate Business Sustainability. Return On Equity Ratio (ROE) dan Debt to Equity Ratio (DER) secara simultan atau bersama-sama berpengaruh positif dan signifikan terhadap Economic Value Added (EVA).

Kata kunci: Economic Value Added, Return On Equity, Debt to Equity Ratio, Kinerja Keuangan, Laporan Keuangan, Return On Equity.

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INTRODUCTION

Based on information from APCO Worldwide, it is found that a company's reputation plays an important role in shaping business success and growth, with many studies showing a strong correlation between a company's reputation and financial performance. Investors also look at three factors when selecting a company, namely the value of the company as a long-term investment, the quality of the company's management and the financial health of the company. According to data obtained by Reuters, Indonesia exported thermal coal to the global market, with a growth of 50.2 per cent from January to October 2023. Therefore, the energy sector, particularly coal stocks, is again in demand by investors due to the increase in coal demand and exports. When choosing a company to invest in, investors should consider the company's financial performance.

According to Pole et al (2023), financial performance to measure the success of a company is presented in the form of financial statements over a given period. To make strategic decisions and Corporate Business Sustainability, financial management requires the analysis of financial statements. According to Lestari (2020), a company's ability to earn profits from capital is an indicator of Return On Equity (ROE) profitability. According to Nasution et al. (2024), the higher the ROE, the better the company's financial performance in obtaining Earnings After Tax (EAT). The higher value of ROE in coal mining companies will attract investors because ROE indicates a high rate of return on investment. A good standard ROE is above 13%. According to Nasution et al (2024), the total debt and equity used by the company should be proportional. Debt and equity used by the company must be in proportional amounts. Measuring Financial Performance with the Leverage Ratio Debt to Equity Ratio (DER) If the value of DER in coal mining companies is high, it indicates that the company is unable to generate sufficient funds to pay off debts. A good DER value should not exceed 2 times equity. It is based on the concept of Economic Value Added (EVA) by including the cost of capital in the calculation of financial performance. The cost of capital element in the calculation of financial performance can help the management of coal mining companies review risks and make better investment decisions. Rahma (2019) If the company wants to achieve a positive EVA, it must be able to cover the costs of using the invested capital. According to Wardhana et al. (2022) The higher the EVA, the more efficient the company's capital management.

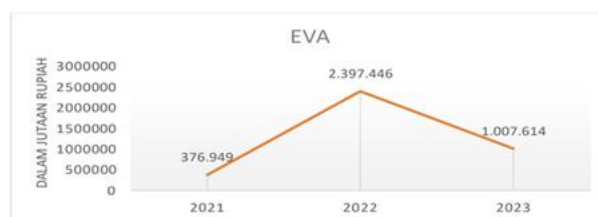


Figure 1.1 Average EVA for the Period 2021 – 2023

Source: Data Processed, 2024

Based on the Figure 1.1 above, it is known that the average EVA movement in coal mining companies from 2021 to 2023 fluctuated. There was an increase between 2021 and 2022, indicating that the average company's management managed to create economic value added. However, there was a decrease in 2023, which could be caused by the reduction of some companies' revenue and the use of debt that is not proportional to equity, resulting in an increase in the company's cost of capital. Therefore, the management of some companies needs to increase revenue and manage the cost of capital more prudently in the coming period. So that the value of wealth can still be generated.

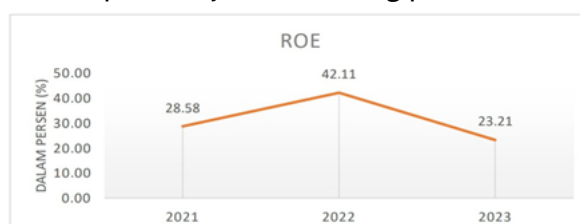


Figure 1.2 Average ROE for the Period 2021 – 2023

Source: Data Processed, 2024

Based on the Figure 1.2 above, it shows the movement of average ROE in Coal Mining companies from 2021 - 2023 which experienced fluctuations. In 2021 to 2022 it increased and the following year it decreased, indicating that the average company in generating ROE from 2021 to 2023 experienced fluctuations. decreased which indicates that the average company in generating profit has decreased. The average trend of ROE is directly proportional to the trend of movement of average EVA in the same period. This indicates that increasing average ROE can increase average EVA.



Figure 1.3 Average DER for the Period 2021 – 2023

Source: Data Processed, 2024

Based on the Figure 1.3 above, it shows the average movement of DER in Coal Mining companies for the period 2021 - 2023 which experienced a downward trend. decreasing. A high DER value indicates the amount of debt that must be fulfilled by the company. fulfilled by the company. Companies that fail to manage their capital structure will cause the company's value to decrease. The average DER trend is inversely proportional with the average EVA.

METODE

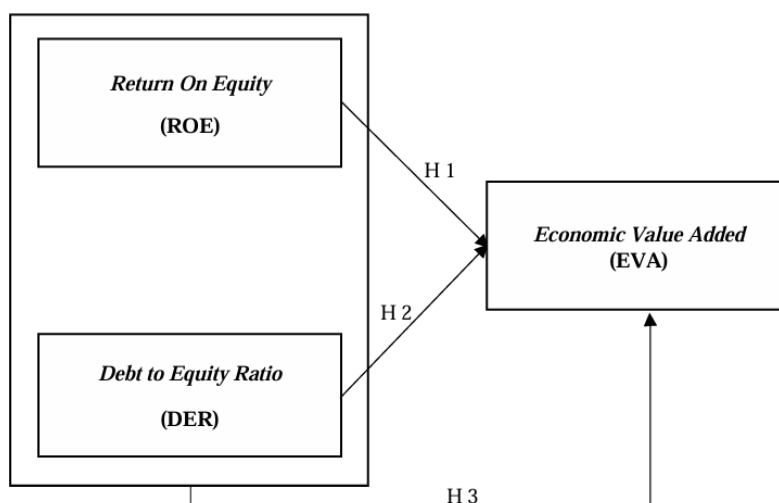
This research used non-experimental research. The research focused on data from the calculation of ROE, DER, and EVA based on coal mining companies listed on the IDX that listed before 2022. IDX-listed coal mining companies that listed on the IDX that listed on the stock exchange before 2022 and published comprehensive financial reports that earned profits in the 2021-2023 research period. 2021-2023 research period. These data constitute the material that will be analyzed using regression analysis of the panel data. The results of this study should be able to provide an effective assessment of the influence of the independent variables on the dependent. on the dependent. In this study, the variables used are the profitability ratio, represented by Return On Equity (ROE), the leverage ratio, represented by Debt to Equity Ratio (DER), and Economic Value Added (EVA).

Hypotheses are the basic assumptions that researchers believe in. These basic assumptions are important to formulated before conducting data collection. Based on the literature study, the author formulates the following problems: Firstly, Return on equity (ROE) partially positively affects

value
(EVA).

value
(EVA).

Debt-to-
(DER) has
negative
economic
added



economic
added
Economic
added
Secondly,
equity ratio
a partially
effect on
value
(EVA).

Thirdly, ROE (Return On Equity Ratio) and DER (Debt to Equity Ratio) simultaneously or together have a positive effect on economic value added (EVA).

Source: Data Processed, 2024.

Figure 2.1 Research Framework

Table 1.1 Operationalization of Variables

No	Variables	Operational Definitions	Indicator	Measurement
1	Profitability (ROE) (X1)	Performance Company with dividing profit net income with equity holders shareholders' equity.	$ROE = (EAT/Equity) \times 100\%$	Ratio
2	Leverage (DER) (X2)	The company's ability to pay its debt obligations.	$DER = Total\ Debt/Equity$	Ratio
3	Economic Value Added (Y)	To financial performance by combining value added with cost of	1. NOPAT 2. Invested Capital 3. Weighted Average Cost of Capital (WACC)	Ratio

		capital to obtain economic value added.		
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Source: Processed Data, Various Theories.

Table 1.2 Research Sample

No.	Sample	Amount
1	IDX-Listed Coal Mining Companies Going Public Before 2022 That Publish Complete Financial Reports And Make Profit In The Period 2021 - 2023	22
2	Number of Research Periods	3
3	Number of Samples (Observations)	66

Source: Data Processed, 2024.

RESULT AND DISCUSSION

Model Selection Estimation

Table 1.3 Common Effect Model Estimation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-521.6451	719.0970	-0.725417	0.4709
X1	64.89119	14.07585	4.610107	0.0000
X2	-172.2066	238.3089	-0.722619	0.4726

Source: Processed Data, 2024.

Table 1.4 Fixed Effect Model Estimation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1403.096	948.7515	-1.478887	0.1466
X1	85.44244	23.04797	3.707156	0.0006
X2	7.704644	451.0714	0.017081	0.9865

Source: Processed Data, 2024.

Table 1.5 Random Effect Model Estimation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-899.6527	898.3292	-1.001473	0.3204
X1	73.46561	16.17608	4.541619	0.0000
X2	-89.40444	287.9543	-0.310481	0.7572

Source: Processed Data, 2024.

Panel Data Regression Method Selection Estimation

Table 1.6 Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.126704	(21,42)	0.0000
Cross-section Chi-square	73.887643	21	0.0000

Source: Processed Data, 2024

From the results of the Chow Test above, it shows the Cross-section Chi Square probability value of 0.0000 (< 0.05), so the selected model is the Fixed Effect Model. Next, the Hausman Test is carried out.

Table 1.7 Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.733512	2	0.6930

Source: Processed Data, 2024

From the results of the Hausman Test above, it shows the probability value of the random cross section of 0.6930 (> 0.05), so the selected model is the Random Effect Model. Furthermore, the Lagrange Multiplier Test is carried out.

Table 1. 6 Lagrange Multiplier Test

—	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	16.40877 (0.0001)	0.419192 (0.5173)	16.82797 (0.0000)
Honda	4.050774 (0.0000)	-0.647450 (0.7413)	2.406514 (0.0081)
King-Wu	4.050774 (0.0000)	-0.647450 (0.7413)	0.575848 (0.2824)
Standardized Honda	4.482988 (0.0000)	-0.286464 (0.6127)	-0.977074 (0.8357)
Standardized King-Wu	4.482988 (0.0000)	-0.286464 (0.6127)	-1.661904 (0.9517)
Gourieroux, et al.	--	--	16.40877 (0.0001)

Source: Processed Data, 2024.

From the results of the Lagrange Multiplier Test above, the Breusch Pagan value is 0.0001 (<0.05), so the selected model is the Random Effect Model. From all the tests, the best model is the Random Effect Model. This model is called the Generalized Least Square (GLS).

Table 1. 7 Panel Data Regression Equation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-899.6527	898.3292	-1.001473	0.3204
X1	73.46561	16.17608	4.541619	0.0000
X2	-89.40444	287.9543	-0.310481	0.7572

Source: Processed Data, 2024

The following is an explanation of the panel data regression equation above: Firstly, The constant value obtained is -899.6527. The value obtained is negative, which means that if the ROE (X1) and DER (X2) variables are equal to zero (0), then the EVA (Y) variable has decreased by -899.6527 billion. Secondly, The ROE (X1) regression coefficient value is 73.46561, which means that every one percent increase in the X1 variable with the consideration that other independent variables are considered constant will increase the value of the Y variable by 73.46561 billion. Thirdly, The DER (X2) regression coefficient value of -89.40444 indicates that every one-digit increase with the assumption that other independent variables are considered constant will decrease the value of the EVA (Y) variable by 89.40444 billion.

The implications of this research, firstly, the effect of Return On Equity (ROE) on Economic Value Added (EVA), it shows that Return On Equity (ROE) partially has a positive and significant effect on Economic Value Added (EVA). A large ROE value indicates that the company is making a

large profit which will increase equity. Increased equity will drive positive EVA. Positive EVA indicates that the company's management has succeeded in creating wealth value for capital owners. In calculating EVA, the cost of capital must be considered. The company should be able to manage capital costs well in order to be able to create wealth value for capital owners. Secondly, the results of the Partial Test show that Debt to Equity Ratio (DER) has a partial negative and insignificant effect on Economic Value Added (EVA). A high DER value indicates that the company has less capital than its debt. Large debt will cause the company to experience losses and reduce equity. Decreasing equity can have an impact on the profits generated. Disproportionate management of the capital structure results in a decline in the company's financial performance. By controlling good invested capital, company management will be able to create economic added value. Thirdly, from the results of the Determinant Coefficient Test, it shows that simultaneously or together Return On Equity (ROE) and Debt to Equity Ratio (DER) have a positive and significant effect on Economic Value Added (EVA). Based on the results of the Determinant Coefficient Test, it is known that the influence of ROE and DER on EVA is 23.3 percent. While 76.7 is influenced by other variables outside this research.

CONCLUSION

This research founded the following conclusions : Firstly, Return On Equity (ROE) partially has a positive and significant effect on Economic Value Added (EVA). This shows that the greater the ROE value generated by the company, it will encourage the company to produce a positive EVA value because the profit generated by the company is getting bigger. Secondly, Debt to Equity Ratio (DER) partially has a negative and insignificant effect on Economic Value Added (EVA). This shows that an increase in DER will have a negative effect on the acquisition of EVA value. If the DER value decreases, it will increase the acquisition of EVA value of the Coal Mining company. Not significant because the use of debt that exceeds equity in the capital structure can result in increased capital costs which cause the EVA value to decrease. By increasing income and reducing costs or activities that are not beneficial to the company, it can encourage positive EVA value in Coal Mining companies. Thirdly, Return On Equity (ROE) and Debt to Equity Ratio (DER) simultaneously or together have a significant effect on Economic Value Added (EVA) of 23.3 percent. Then the remaining 76.7 percent is influenced by variables that are not carefully studied in this study. The independent variables used in this study are still very low in explaining the dependent variable. So there are still other independent variables that have an effect that are not included in this research.

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